Exhibit 8

Analysis of the Competitive Effects of an LMA between WTTE-TV and WSYX-TV in Columbus, Ohio

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I. INTRODUCTION

Economists Incorporated (EI) has been retained by Wilmer, Cutler & Pickering, counsel for Sinclair Broadcast Group, Inc. (Sinclair), and Dow, Lohnes & Albertson, counsel for River City Broadcasting, to analyze the proposed Local Marketing Agreement (LMA) between WTTE-TV Channel 28 and WSYX-TV Channel 6 in Columbus, Ohio. The parties believe the proposed transaction will result in substantial operating efficiencies, making the proposed LMA a more effective competitor in a relevant market made up of numerous competing media. EI has been asked to analyze the likely competitive effects of the proposed LMA and to prepare a paper summarizing its findings.

This paper analyzes the competitive conditions in the marketplace in which the proposed LMA will operate. In particular, the paper first focuses on the extent to which other media compete with broadcast television stations for local advertising. We conclude that local advertising on broadcast television is not a relevant market for antitrust purposes. That conclusion is based on three pieces of evidence: (1) actual advertiser purchasing patterns in Columbus demonstrate that firms targeting the same consumers use a varied mix of media in proportions that vary across advertisers and across time, contrary to what one would expect if the various media were complements rather than substitutes; (2) interviews conducted with Columbus advertisers and advertising agencies indicate that the majority of them view other media as good substitutes for broadcast television advertising and, in response to a significant increase in the relative price of broadcast television, would switch some or all of their purchases to other advertising vehicles; and (3) two econometric studies that examine the relationship between television advertising rates or television station profitability and concentration strongly suggest that over-the-air television advertising is not a relevant antitrust product market.

The paper presents calculations of the proposed LMA's revenue share in the relevant market and in hypothetical markets that exclude certain media. Even in a hypothetical market that includes only broadcast media, *i.e.*, broadcast television, cable television, and radio, the combined revenue share of the LMA stations and the post-LMA level of concentration in the Columbus area are insufficient to raise antitrust concerns. Moreover, even if one were to assume, inappropriately, a market that includes only local advertising on broadcast and cable television, the post-LMA "television market" structure in Columbus does not differ substantially from the post-merger "radio market" structure that resulted from several recent radio transactions and consent decrees.

Our conclusion that the post-LMA market structure in Columbus is unlikely to result in any competitive harm to local advertisers is reinforced by our findings regarding both the difficulty of local television stations engaging in collusion and the improbability of a profitable unilateral price increase by the LMA stations. Even assuming a market confined to local television advertising, certain characteristics—the heterogeneous nature of television spots, the individualized and opaque process by which they are sold, and the high contribution margins from television advertising—effectively preclude successful collusion among Columbus broadcasters. Similarly, both the absence of any evidence that significant numbers of advertisers view WTTE and WSYX as their first and second choices and the difficulty of successfully price-discriminating among advertisers lead us to conclude that no unilateral anticompetitive effects will result from the LMA.

Finally, the paper discusses two of the most significant efficiencies expected from the LMA: the expanded output of local news and the enhanced ability of the stations to offer advertisers broader, unduplicated reach through complementary programming. Both of these efficiencies, which Sinclair has achieved in other LMA markets, offer procompetitive benefits to advertisers. These efficiencies further support the conclusion that the proposed LMA is unlikely to have an adverse effect on the market for the sale of local advertising in Columbus.

II. BACKGROUND: ADVERTISING MEDIA

As detailed more fully in section III-B, our interviews with advertisers and advertising agency personnel indicate that broadcast television competes with a variety of substitute media for local advertising revenue. What other media an advertiser considers reasonable substitutes for broadcast television advertising depends on the goals and preferences of the particular advertiser. Our interviews revealed that if there were a significant, nontransitory increase in the price of broadcast television advertising relative to the prices of other media many advertisers would switch their purchases from television to another medium, *e.g.*, cable television, radio, newspapers, and outdoor advertising. This section discusses some of these other media.

The various media differ to some degree in the product they offer, *e.g.*, in the extent of their geographic reach, in the amount and kind of information they convey, and in their ability to target certain demographic groups. The importance of these differences to advertisers depends on what the advertiser is trying to sell, but our research indicates that most advertisers can substitute other media for television in response to an increase in the relative price of television advertising time. Accordingly, competition between TV stations and other media may be nearly as important as competition among TV stations. Advertisers want their messages to be delivered at the lowest possible cost to the audiences most likely to be interested in purchasing their products or services.[1]

The vast majority of advertising purchases are made through advertising agencies, which are sophisticated buyers with numerous sources of information about market conditions. The agencies attempt to find combinations of media, and indeed of particular programs or stations, that best attract the target audience. Advertisers generally assess the relative expense and efficiency of delivering a message via different media on the basis of cost per thousand households (CPM).

1/ *See* Glen J. Nowak, Glen T. Cameron and Dean M. Krugman, "How Local Advertisers Choose and Use Advertising Media," *J. of Advertising Research* 39, 45 (Nov./Dec. 1993).

Within an advertising agency, media directors outline the advertising campaign, while media planners fill in the details. Between them, the media directors and planners lay out the advertising campaign guidelines, determine the target demographics, select the media to use, and allocate the budget. Once these decisions are made, the media buyers negotiate the terms of the transactions.

A. Broadcast Television Advertising

The broadcast television industry obtains its revenues by selling viewer attention, *i.e.*, access to the viewers of its programming, to advertisers. Generally, advertisers seek to reach potential purchasers of their products. However, since the distribution of potential purchasers of advertised products is not uniform across the population, each advertiser will have different preferences for audience characteristics. The most prominent of these characteristics are geography and demographic composition—*i.e.*, age, sex, income, and education. Television broadcasters seek to provide programming that will produce the largest audiences with the characteristics valued by advertisers. Broadcasters typically sell time to advertisers using the concepts of gross rating points (GRP), reach, and frequency. A rating point is the estimated percentage of households, or target audience, potentially exposed to a commercial. Reach is the percentage of households (or target audience) exposed to a message at least once over a predetermined time span. It is also called "cume," short for cumulative audience. Frequency is the average number of times households are exposed to an advertising message. GRP equals reach multiplied by frequency.

Television advertising is typically sold in one-on-one negotiations in which each station attempts to develop a package of spots and rates that will get it a share of the buy. The negotiation process generally begins when a buyer contacts a salesperson, or account executive, at a station. In Columbus, all of the local stations typically are contacted about an upcoming purchase, with the occasional exception of WWHO. The station salesperson often functions as a middleman between the media buyer and the station sales manager. When the salesperson is contacted by the buyer regarding a possible order, he may refer to the station's rate card, but he may also consult with the station sales manager about what prices to quote. If the advertiser is local, the station salesperson talks to the local sales manager. If the advertiser is placing a national spot buy, the national sales representative calls the national sales manager of the station involved.

After obtaining "avails" (rate quotes and available spots) from each station, the media buyer compares them and attempts to piece together a schedule that achieves the advertising campaign's objectives within the predetermined budget. Using ratings data and the quoted prices, the buyer will typically consider a number of alternative advertising schedules and analyze each prospective schedule for its reach, frequency, and cost per point (CPP).

If the buyer cannot achieve her objectives with the first set of avails submitted by the stations, she will usually continue negotiations with the station salespeople before going back to the media planners and directors. She may, for example, tell the salesperson that his station's rates are too high and that, without some adjustment, he will not get a portion of the buy. Station salespeople rarely respond by cutting their rates right away, because it leaves them vulnerable to the same pressure the next time around. The typical response is to repackage the proposal, *e.g.*, by changing spots and programs around in order to devise a schedule that may develop more GRPs for the same total cost. Back-and-forth negotiations of this sort may continue before a deal ultimately is struck.

The station's inventory, or the number of unsold commercial slots, is the most significant factor in determining what price will be quoted. If sales are weak, the quoted rate will be lower. If the station is almost sold out at the time the advertiser wants to be on the air, the quoted rate will be higher. As in other businesses, discounts for purchases in quantity are normally available. Price is also affected by what the advertiser seeks to buy. Stations typically quote more favorable rates to buyers of "Total Audience Plans," which offer an equal dispersion of announcements over a number of programs. On the other hand, buyers will be quoted higher rates if they seek spots only in the most highly demanded programs or spots that cannot be "preempted," *i.e.*, replaced with a spot from an advertiser willing to pay more for the time. Stations are also concerned about getting their share of the buy relative to other media or other stations and frequently will make concessions on price in return for a substantial part of the order.

Each buy is normally negotiated separately, even if one advertising agency is making purchases for several different clients. Nevertheless, the fact that an agency represents a number of accounts (especially if they are sizable) and may be able to commit a significant amount of spending in aggregate to a station is a bargaining tool that the buyer can use in negotiating better rates. Some advertisers will use media buying services with the aim of obtaining better rates. These large media buying services represent numerous advertisers and negotiate rates on behalf of all of them.

B. Cable Television Advertising

Advertising on local cable systems is an option that advertising executives in Columbus frequently mentioned as a good substitute for spots on broadcast television. Like broadcast television, cable allows an advertiser to present its message with a visual impact. The National Association of Broadcasters recognized as early as 1991 that "cable systems are aggressively selling advertising in competition with local broadcasters." [2] That competition has only intensified. The Cabletelevision Advertising Bureau reports that advertising sales by cable systems, cable networks, and regional cable sports channels nationwide totaled $6.0 billion in 1996, an increase of 138 percent since 1990. Local and national spot cable advertising grew at a compound annual

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2/ Comments of the National Association of Broadcasters in MM Docket No. 91-221, Review of the Policy Implications of the Changing Video Marketplace, November 21, 1991, at 9.

growth rate of 17 percent between 1990 and 1996, from $0.63 billion in 1990 to $1.67 billion in 1996, and is projected to reach $1.92 billion in 1997.[3]

Cable systems cover smaller geographic areas than broadcast stations, so local cable advertising can target a narrower geographic audience. However, cable operators can also compete with broadcast television in offering advertisers broad geographical reach through interconnects, which allow an advertiser to run the same spot on neighboring systems with one purchase. Two cable system operators, Time Warner and Coaxial, service the bulk of the cable homes in the Columbus metro area. While there is not a formal cable interconnect currently in place in Columbus, it is our understanding that Time Warner and Coaxial at times cooperate informally to allow advertisers in a single transaction to buy a spot that will run on both systems.

Individual cable operators offer advertisers broad demographic reach by selling packages of time on multiple basic cable networks, each of which attracts a different audience. A cable operator can mix and match many channels of programming to create a tailored cluster of spots that reaches all the demographics the advertiser seeks. For example, in Columbus, Time Warner offers local advertising on 28 cable networks and Coaxial offers local advertising on 20 cable networks.

Cable has become an increasingly formidable competitor for advertising as viewers have migrated to it from the major broadcast networks. Recent figures indicate that the Big Four broadcast networks' share of television viewing audience fell 6 percent during the past television season and, according to Nielsen reports, the four networks' prime time viewing percentage dropped to 62 percent, down from 65.2 percent a year earlier. By contrast, viewing of basic cable networks grew to 32.4 percent from last season's 29.5 percent.[4] Advertising executives are aware

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3/ Cabletelevision Advertising Bureau, *1997 Cable TV Facts*, at 6.

4/ "Big 4 Wrap Up Season with Fewer Viewers," *Broadcasting & Cable*, May 26, 1997, p. 14.

of this trend, and as viewers shift from the broadcast networks to cable networks advertising dollars are likely to follow.[5]

Since 1989, cable operators have nearly tripled their available local advertising inventory. The number of basic cable networks on which cable operators can insert local spots has grown from an average of 7.6 in 1989 to 18.2 in 1996.[6] While the growth of local cable advertising revenue has lagged the growth of cable viewing, cable is now in a position to rival the broadcast networks in terms of audience reach and this disparity should disappear as cable operators become more effective at marketing themselves to advertisers.

C. Radio Advertising

Radio stations represent another attractive advertising vehicle for advertisers because their formats generally target a narrowly defined demographic and advertising spots can be produced without a long lead time. For these reasons, many of the advertisers and advertising agency executives we spoke with in Columbus indicated that they viewed radio spots as a good substitute for commercials on broadcast television. Indeed, many identified radio as a substitute before they mentioned cable.

In addition, the increasing consolidation in the radio industry has enhanced radio's ability to compete with broadcast television by offering broad reach to advertisers. The relaxation of the radio ownership rules and the advent of groups owning several stations in a market has enabled those owners to offer advertisers a package of spots that delivers a spectrum of demographics.

5/ Indeed, the Time Warner cable system in Columbus emphasizes this trend prominently in the promotional material that it provides to advertisers. *See* Exhibit 1. *See also,* "Veronis, Suhler See Bright Future for Cable, Online," *Electronic Media,* July 28, 1997, p. 18. Veronis, Suhler & Associates forecast a continued shift in viewing from broadcast networks to cable networks and a closing of the gap between advertising expenditures on cable networks and broadcast networks.

6/ "How to Cope with Local Cable Ad Growth," *Electronic Media*, June 30, 1997, p. 6.

This phenomenon has not bypassed Columbus. Jacor Communications now owns seven of the 32 commercial radio stations in the market.[7] By marketing these stations as a group, Jacor is able to offer advertisers a combined reach on its stations equal to or greater than the reach obtained by a television station and to lower the transaction costs in making this purchase. It is our understanding that Jacor is already marketing its group of radio stations against the Columbus television stations by informing advertisers that its stations reach an audience during morning drive time that significantly exceeds the numbers achieved by any television program aired in the same time period.

D. Newspapers

Advertisements in daily newspapers typically offer a broad reach and the advantage of being able to provide the reader with a significant amount of detailed product information. Nevertheless, numerous reports have documented the erosion over the past decade in the share of local advertising revenues gained by newspapers. For example, one observer has noted that "during the past decade, [newspapers' advertising share]...has been eroding as a steady stream of competitors have emerged and the marketplace for advertising became fragmented."[8] Specifically, he notes that

> [i]n most communities the competition for the reader's time and attention and the local advertiser's dollars is fearsome. There [is] a whole host of competitors including television, cable TV, national and regional dailies, weeklies, shoppers, magazines, and yellow page directories. And the number of media choices is expanding.[9]

7/ BIA, *Master Access Radio Analyzer*, May 1997. Of the 32 radio stations, 20 are FM stations and 12 are AM stations.

8/ Jules S. Tewlow, "Are Newspapers in Trouble? Observations on Some Trends and Developments in the Newspaper Business," Program on Information Resources Policy, Harvard University Center for Information Policy Research, August 1991 at 6.

9/ *Id.* at 6; *see also* Brenda Daglish, "Newspapers Face Up to a Bad-News Market," *The Financial Post,* February 22, 1996, p. 25, (reporting the fact that the advertising market is fragmenting as a number of new media forms, like direct mail, on-line computer services and specialty television channels compete with traditional advertising outlets such as

This erosion clearly suggests that newspapers and broadcast television compete at least to some extent for local advertiser dollars.[10] Further support for this conclusion comes from a study by James Ferguson, which examined the effect of various factors, including media competition, on daily newspaper advertising rates.[11] He found that an increase in the number of radio and television stations in a city significantly decreased daily and Sunday newspaper national and retail advertising rates. That result is consistent with our conversations with Columbus advertisers and advertising agency executives. A number of them indicated that higher prices for broadcast television advertising would prompt them, especially over the long term, to shift spending into newspapers and other print media.

E. Other Media

Finally, some advertisers and agency executives noted that other media can be effective substitutes for broadcast television. These include outdoor advertising and, increasingly, direct mail. Other growing sources of competition for local advertising revenues are on-line sites[12] and promotional expenditures. With respect to the latter, some industry analysts have concluded that

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newspapers, magazines and network television for advertising budgets); U.S. Department of Commerce, *U.S. Industrial Outlook 1994: Printing and Publishing,* January 1994, p. 24-1, (reporting that newspapers' share of total media advertising expenditures has continued to shrink and that "[i]ncreasingly, newspapers have had to compete for advertising dollars and audience with direct-mail operations, cable television, community-based shopper newspapers, radio, local television, Yellow Pages and weekly newspapers.")

10/ *See, e.g., Mediaweek,* March 18, 1996, p. 18, (reporting that as a result of competition with TV and cable, both of which sell off rate, newspapers are having to become more flexible about departing from their rate cards for advertisers.)

11/ James M. Ferguson, "Daily Newspaper Advertising Rates, Local Media Cross-Ownership, Newspaper Chains, and Media Competition," 26 *Journal of Law & Economics* 635 (October 1983).

12/ *See, e.g.,* Diane Meronigas, "Study Offers Data on Online Spending," *Electronic Media,* March 31, 1997, p. 16, (citing figures released by the Internet Advertising Bureau showing that on-line advertiser spending reached $267 million in 1996, growing 266% from the first to the last quarter.) Rich LeFurgy, the IAB Board Chairman, predicts that advertiser spending on the Internet will continue its average 45% quarter-to-quarter growth in 1997.

there has been a structural change in advertising, with the result that paid advertising, particularly in mass media, has been of declining importance, both in general and relative to other marketing techniques.[13] Today's technology makes possible pinpointed marketing to a company's most likely customers, and companies have been shifting their marketing dollars out of paid advertising and using other, more targeted marketing strategies, such as promotions, contests, direct marketing, and couponing. Even where paid advertising is used, traditional mass media, such as broadcast television, are finding their share of advertising expenditures eroded by other media that can more narrowly target the demographics a particular advertiser is trying to reach.

III. MARKET DEFINITION

The critical task in evaluating the competitive impact of the proposed LMA is to determine what types of advertising are in the relevant market. As suggested above, broadcast television competes to some degree for advertising dollars with many other vehicles that provide access to an audience, such as cable television, radio, newspapers, direct mail, and billboards. The question is which of these media should be included in the definition of the relevant market.[14]

According to the Horizontal Merger Guidelines, the relevant product market is composed of the product or group of products such that a hypothetical profit-maximizing firm that was the only present and future seller of those products likely would impose a small but significant and nontransitory increase in price. If the hypothetical monopolist would find the price increase to be

13/ *See* "What Happened to Advertising?" *Business Week*, September 23, 1991, p. 66.

14/ In this regard, we note that the FCC's Office of Plans and Policy reported that television advertising is only one component of a larger advertising market, and that competition from other media crucially affects the health of broadcast television stations. Advertising alternatives to television cited in the FCC's report include radio, newspapers, magazines, direct mail, yellow pages and outdoor advertising. Florence Setzer and Jonathan Levy, "Broadcast Television in a Multichannel Marketplace," Office of Plans and Policy, Federal Communications Commission, June 1991, at 112, 133.

unprofitable, then the next-best substitute would be added to the product group and, under the Guidelines' paradigm, the process would be repeated.

The essence of market definition under the Guidelines' approach is thus the determination of whether a price increase by all firms in the market would be profitable. The profitability of such a price increase is determined by the demand and cost conditions facing the firms in the provisional market. The amount of sales that must be lost to cause a price increase to be unprofitable is sometimes called the "Critical Loss."[15] In this case, the Critical Loss is calculated by comparing (1) the gain in profits from a hypothesized price increase for those advertisements that continue to air on television at the higher price, to (2) the reduction in profits from customers who reduce their television advertising. Therefore, the magnitude of the Critical Loss depends on the size of the hypothesized price increase and on the television stations' price-to-variable cost contribution margin. The higher the contribution margin (*i.e.*, the greater the lost profit per dollar of lost advertising), the smaller will be the Critical Loss.

Putting sales commissions aside, there are very few variable costs associated with airing an additional television advertisement.[16] Consequently, unless a station can replace a lost sale with other advertising, the lost advertising revenue translates to a loss of profit equal to almost 100 percent of the price of the lost spot. Therefore, for television stations, a five percent increase in their advertising rates will be unprofitable if they lose more than five percent of their advertising

15/ *See* Harris and Simons, "Focusing Market Definition: How Much Substitution is Necessary," 12 *Research in Law & Economics* 207 (1989); Baumann and Godek, "Could and Would Understood: Critical Elasticities and the Merger Guidelines," 40 *The Antitrust Bulletin* 885 (1995).

16/ One cost associated with airing an additional advertisement is the opportunity cost of airing something else during that time period. This alternative could either be more programming, a promotional spot, or a public service spot. Since an additional advertisement will displace the alternative with the lowest opportunity cost, the opportunity cost of an additional spot is likely to be small.

revenues.[17] That is, absent price discrimination,[18] in order to establish that the relevant product market for purposes of analyzing this transaction consists only of broadcast television advertising, it is necessary to demonstrate that almost no advertising sales would be lost as a result of the stations' price increase.

A significant number of advertisers need not pull out of television entirely or even substantially for the price increase to be unprofitable. On the contrary, the Critical Loss may result merely from a series of individual decisions by advertisers to use other media more extensively, in view of the increased value of those media relative to the hypothesized higher cost of television advertising. Virtually all advertisers currently on television use some mix of media to reach their prospective customers. The make-up of that mix for any particular advertiser depends upon the relationship between the perceived effectiveness of a medium in communicating the advertiser's message and its cost—as either variable moves, the media mix shifts.

In the following sections we summarize evidence regarding substitution among the various media based on (1) historical patterns of media usage by advertisers in Columbus, (2) interviews with advertising agency executives who purchase advertising in Columbus, and (3) economic literature concerning the effects of broadcast television station concentration on television advertising rates and profitability. Evidence from all of these sources indicates that broadcast television advertising is not a separate market.

17/ This is equivalent to saying that a price increase would not be profitable if the own-price elasticity of demand is greater than 1. Even if it is assumed that television advertising has only a 80 percent contribution margin, the Critical Loss associated with a five-percent price increase is still less than six percent.

18/ As explained in section V-B, local television stations in Columbus are unlikely to be able successfully to price discriminate among their customers.

A. Historical Patterns of Media Usage

An assumption that broadcast television advertising is a separate market implies that, despite the multitude of different advertising media, each advertiser using television faces few or no alternatives in the media mix that it can employ to reach potential customers. This would be the case, for instance, if advertisers use the various media as complements. If the various media are complements rather than substitutes, one would expect that like advertisers trying to sell like products to like customers would use similar advertising media and in roughly the same proportion. Moreover, while advertising patterns might change over time due to new advertising approaches and perhaps different relative prices of various media, one would still expect advertisers in a given business category to follow a similar expenditure pattern, *i.e.*, if one or two advertisers found a new, more efficient media mix to attract customers, the rest would soon follow. These hypotheses can be tested by examining actual advertising purchase patterns.

The VoiceTrak Market Activity Report for Columbus (attached as Exhibit 2) lists advertising expenditures by various business categories, such as financial institutions, health plans, hospitals, fast food, casual dining, supermarkets, and home improvement. These data show total advertising by individual firms in each business category, as well as a breakdown of advertising expenditures by type of advertising media, including newspapers, television, radio, outdoor, and magazines. In addition, the data show current and historical spending, allowing for a comparison of shifts in advertising expenditure patterns.

The VoiceTrak data are substantially inconsistent with the notion that the various advertising media function solely as complements. Each business category represents a group of competitors that is trying to sell a collection of similar products to similar customers. If the various media worked as complements in allowing advertisers to reach their target customers, then one would expect the advertisers to follow similar patterns in terms of the allocation of their advertising budgets across media at any given point in time, and over time. The VoiceTrak data indicate that advertisers within each category have different total budgets, allocate their budgets to each media in quite different proportions, and change their allocations in different directions.

For example, the VoiceTrak data for advertising expenditures by casual dining establishments show that some restaurants use no newspaper advertising, others use no television, and still others use no radio. On the other hand, restaurants like Bob Evans', Chi-Chi's and Damon's Ribs use newspaper, TV, and radio advertising simultaneously, but in very different proportions. The expenditure pattern exhibited by these businesses is inconsistent with the notion that TV advertising reaches a segment of customers that cannot be reached through other media and that the media function as complements. Furthermore, a comparison of full year 1996 data to first quarter 1997 data shows that while some restaurants (*e.g.*, Applebee's, Frisch's Big Boy and Don Pablos) increased their proportion of television advertising, others (*e.g.*, Bob Evans', Chili's and Fuddruckers) decreased their spending in that medium. Some shifted their spending from television into radio (*e.g.*, Red Lobster, Chi-Chi's and Fuddruckers), others shifted into newspapers (*e.g.*, Damon's Ribs) and still others shifted into outdoor advertising (*e.g.*, Bob Evans' and Frisch's Big Boy). These spending shifts indicate that the various media function as substitutes and reinforce the conclusion that television advertisers are willing and able to turn to another medium to reach their target audiences. Similar examples can be drawn from each of the business categories covered by the report.[19]

The VoiceTrak data make clear that advertisers selling the same type of product to the same group of customers use different media, and a different mix of media, to reach their target customers. The fact that advertisers move in and out of television (or up and down in the percentage of television) and that there is no consistent pattern to these movements indicates that

19/ *See also* Nowak, Cameron and Krugman, *supra* note 1, at 47. They conducted a survey of local advertisers in two different geographic areas and found that, overall, 33 percent said that media mix changes were primarily the result of changes in media costs.

Columbus advertisers view these different media as reasonably interchangeable means of reaching their desired audience. This evidence suggests that broadcast television advertising alone cannot constitute a relevant product market.

B. Interviews with Columbus Advertisers

We interviewed advertising agency executives representing a wide variety of clients, including fast food restaurants, gasoline retailers, hospitals, banks, soft drinks, grocery store chains, car dealers, clothing stores, and shoe stores. In addition, we spoke to a number of advertisers who buy their television spots directly from the stations. These individuals were identified by WTTE and WSYX as people who spend significant sums of money on Columbus broadcast television advertising.

We asked all of the advertisers how they would respond if the rates for broadcast television spots increased by 5-10%, relative to the prices of other media. As might be expected given the variety in spending patterns revealed by the VoiceTrak data discussed above, the answers we received were not uniform with respect to specific strategies. The nature of any adjustment to an increase in broadcast television advertising rates depended upon each advertiser's specific objectives and budget. Since each advertiser is different, it is hard to generalize about what would happen in response to an increase in broadcast television advertising rates. Nevertheless, the vast majority of the respondents indicated that they would shift some or all of their spending into other media.

For example, one of the car dealers indicated that he would certainly shift some of his spending out of broadcast television and would consider eliminating television spots altogether. Another car dealer, who currently advertises primarily on radio and television, told us that he would move at least 50% , and perhaps 100%, of his current television advertising budget into other media, particularly radio. He added that, from his perspective, television and radio are generally equivalent in their effectiveness in reaching his customers.

Advertising agency executives also predicted that a chain of local gas stations, several restaurants, a bank, a clothing store, and a hospital would react to the projected price increase by reducing or discontinuing their television purchases and shifting into radio. Other advertising executives we interviewed indicated that their clients (*e.g.*, car dealers, a local utility, and a grocery-store chain) would shift some or all of their broadcast television spending primarily to cable programs with their target demographics. One executive whose fast-food client currently buys advertising in the following ratio—95% broadcast television, 4% radio, 1% outdoor—predicted that her client would shift its expenditures out of television completely and into cable and supplemental radio spots. Still others indicated that they would utilize print as an alternative if television advertising rates were to rise. For example, the vice president of a regional fast food chain, which currently spends 80% of its advertising budget on broadcast television and the remainder on print, told us that he would definitely shift most if not all of his television expenditures into radio and newspapers. Similarly, the media buyer representing a steel-equipment manufacturer, which currently divides its budget 30:70 between broadcast television and print, told us that she would shift into print advertising entirely if television spot prices increased.

These responses strengthen the conclusion that broadcast television competes in an advertising market that includes other media. Further support comes from the stations' own records: both WSYX and WTTE have compiled a list of current or former customers that have shifted television advertising dollars either partially or entirely into other media. (See Exhibit 3.) In addition, as their promotional materials demonstrate, both stations view themselves to be in competition with other media for advertising dollars. (See Exhibit 4.)

The basic message from the interviews we conducted is that there are many options available to most advertisers and television stations have to price competitively in order to maintain sales. Buyers of advertising consider cost per point and projected reach in determining the allocation of their budgets among the various media. As our interviews confirm, if the cost of one medium rises relative to that of the others, advertisers will respond by substituting into the relatively lower-priced (and hence more efficient) alternatives. These alternatives must, therefore, be counted as part of the relevant market.

C. Empirical Analysis

This section summarizes two econometric studies that found that the number of competing broadcast television stations has no effect on either the price of advertising time sold by television stations in a particular area or the profitability of a station. Consistent with the evidence from the VoiceTrak data and advertiser interviews, these studies conclude that broadcast television competes with a variety of other media in the market for the sale of local advertising.

Using transactions price data (as opposed to list price data), Fournier and Martin examined the effect of market concentration on the price of spot television advertisements.[20] Their analysis employed alternative concentration measures, including the HHI, and they controlled for a number of other factors, such as the number of spots purchased, audience demographic characteristics, and the variance of the expected audience size. Fournier and Martin's results indicated that the number of competing television stations in a Designated Market Area (DMA) has no effect on the price of spot television advertising time. Since additional stations provide alternative sources of supply to advertisers, Fournier and Martin concluded that the absence of price effects suggested that the

20/ Gary M. Fournier and Donald L. Martin, "Does Government-restricted Entry Produce Market Power?: New Evidence from the Market for Television Advertising," 14 *The Bell Journal of Economics* 44 (Spring 1983).

stations were competing in broader markets that likely include wider geographic areas and other types of media.

In addition, Fournier and Martin's regressions did not produce the positive relationship between the prices of advertising sold by stations and the indices of station sales concentration that would be predicted if local television advertising constituted a separate market.[21] The coefficients of their concentration measures are typically not significant, or suggest that rates *fall* when concentration increases. The authors conclude that television broadcast station concentration, "however measured, ...overlooks some additional constraints placed on stations in their output markets."[22]

A separate econometric study by Fournier also focused on local television stations, but looked at station profits and sales prices instead of advertising rates.[23] He examined the importance of certain factors that potentially could affect station profitability, including channel frequency, network affiliation, and the number of competing local television stations. A station's sales price was used to reflect the market's evaluation of the station's profitability. Based on his regressions on profitability and sales prices, Fournier reported

> no significant effect...from either (a) the number of stations competing in the market, or (b) the share of the market accounted for by the largest two stations. These variables are indicators of market structure, yet none has a significant effect on profitability. Thus, while concentration may be quite high in some markets, it seems not to have a systematic influence on profitability.[24]

21/ Fournier and Martin employed two-stage least squares to correct for any possible endogeneity in the degree of concentration. They find that after correcting the equation for possible simultaneity of the concentration measures, "these measures of market structure have no significant effect on" price.

22/ Fournier and Martin, *op. cit.*, at 53.

23/ Gary M. Fournier, "The Determinants of Economic Rents in Television Broadcasting," 31 *The Antitrust Bulletin* 1045 (Winter 1986).

24/ *Id.*, at 1058.

The implication of these two studies is that advertisers seeking local audiences regard other local media as substitutes for television advertising. Thus, they suggest that little or no adverse effect on advertising rates would result if combinations of television stations were permitted in the same market. In sum, the prices of advertising sold by stations and station profitability do not have the positive relationships with measures of concentration that would be predicted if local spot advertising time sold by television stations constituted a separate market.

D. Summary

The VoiceTrak data and advertiser interviews demonstrate that Columbus advertisers can and do use a variety of local media to reach their customers. The allocation of their spending among the various media is sensitive to a number of factors, including price, and there is every indication that most Columbus advertisers would readily switch at least some of their advertising expenditures from television to other media, particularly cable, radio and print, if the relative price of television advertising were to increase significantly. Fournier and Martin's studies buttress this conclusion. If other media were not reasonable substitutes for local television advertising, one would expect that television spot prices and station profitability would be higher in areas with greater television station concentration. The studies, however, did not find a positive relationship between concentration and either prices or profitability. Accordingly, for purposes of analyzing the proposed LMA, the relevant product market is broader than broadcast television advertising and encompasses numerous forms of advertising, including broadcast television, cable television, radio, newspaper, outdoor, and direct mail. If a small, but significant, non-transitory price increase were to occur for television advertising in Columbus, the evidence we have examined indicates that advertisers would quickly shift significant expenditures away from television advertising to these alternative media.

IV. MARKET CONCENTRATION ANALYSIS

This section presents the market shares of WTTE and WSYX and the change in concentration resulting from the LMA in a market that includes all local advertising media in Columbus. It also examines the stations' shares and change in concentration assuming, *arguendo*, that the relevant market consists of only broadcast media (*i.e.*, broadcast television, cable television, and radio). In both cases, we find that the change in concentration resulting from the LMA is too small to warrant a concern that the proposed arrangement would adversely affect Columbus advertisers. Finally, we consider the stations' shares assuming, *arguendo*, that the relevant market consists of only broadcast television and cable television. We find that even under this narrowest market definition, the combined share of the two stations is below 35 percent, the threshold the Merger Guidelines indicates is necessary before unilateral effects become a concern and that the Department appears to have applied in evaluating recent radio mergers.[25]

Table 1 in Exhibit 5 presents estimated 1996 local advertising sales revenue for those media in Columbus for which we were able to obtain data. When the local revenue for all these advertising media are considered, WTTE's revenue share is estimated to be 2.5 percent and WSYX's revenue share is estimated to be 3.1 percent.[26] The change in the HHI resulting from the proposed LMA is approximately 16. We have not calculated a pre- or post-LMA HHI since we are unable to allocate outdoor, yellow pages, direct mail, and miscellaneous local revenues to individual entities. However, a change in the HHI of 16 is insufficient to raise any antitrust concerns, regardless of the level of concentration.

25/ *See* "Horizontal Merger Guidelines," Department of Justice and Federal Trade Commission, April 2, 1992, § 2.2, and Hon. Joel I. Klein, "DOJ Analysis of Radio Mergers," Speech presented at the ANA Hotel, Washington, D.C., February 19, 1997.

26/ Table 4 in Exhibit 5 presents the sources and discusses the methodology used to construct these revenue and share estimates.

The first narrower market considered includes local advertising only on broadcast media, *i.e.*, broadcast television, cable television, and radio. Hence, it includes only the broadcast side of advertising expenditures.[27] This candidate market represents the narrowest possible market consistent with the results of the interviews and econometric studies discussed in the preceding section. Table 2 in Exhibit 5 shows that, even when only these three categories of advertising media are considered, WTTE's revenue share is 9.3% and WSYX's revenue share is 11.6%. The HHI would increase by 216 from a base of 1303 as a result of the proposed LMA. This level of concentration indicates that the proposed LMA is unlikely to create any anticompetitive problems.

The second narrower market considered includes only local advertising on broadcast and cable television. Table 3 in Exhibit 5 shows that WTTE's share of local broadcast and cable television advertising revenues in 1996 was 15.2%, and WSYX's share of these revenues was 18.8%. Under the proposed LMA, the two stations would therefore account for 33.9% of the local television advertising revenues in Columbus. This is below the 35% threshold that the Merger Guidelines indicate is necessary before unilateral effects become a concern and is also below the post-divestiture revenue shares in the radio mergers that the Department has challenged to date.[28]

There are at least two factors that may affect the relative shares of the Columbus' broadcast television stations in the future. First, WWHO, which is currently operated under an LMA

27/ Many media planners initially allocate a portion of a client's advertising budget to print and another portion to broadcast, based on *a priori* perceptions of cost and effectiveness of these media. Typically, the media planner will then take, for example, the broadcast advertising budget and allocate it among broadcast television, radio and cable television. These allocations can and do shift over time, depending on changes in the price and performance of the various media.

28/ The Jacor/Citicasters merger in Cincinnati resulted in a post-divestiture share of radio advertising dollars of 46%; the ARS/Lincoln Group merger in Rochester resulted in a post-divestiture share of radio advertising dollars of 38%; and, the Westinghouse/Infinity merger resulted in a post-divestiture share of radio advertising dollars in Boston and Philadelphia of just below 40%. Klein, *op. cit.*, at 4-5.

agreement by WCMH, is being sold to Paramount.[29] It is our understanding that Paramount intends to terminate the LMA agreement with WCMH and operate the station itself as an United Paramount Network (UPN) affiliate. At present, WTTE, a Fox affiliate, also is a secondary affiliate for UPN.

Second, there is another broadcast television station in the Columbus DMA, WSFJ. This station is currently carried on both major Columbus cable systems under the must-carry regulations and is operated as a non-commercial station with a religious format. However, we are aware of no obstacles that would prevent someone from buying WSFJ and turning it into a commercial station. If WSFJ were to be acquired and converted to a commercial station, it would provide an additional outlet for local advertisers seeking to reach Columbus consumers. In fact, Paxson Communications Corp. is building what it expects will be the nation's seventh over-the-air television network by purchasing religious stations across the country.[30] Paxson has recently reached agreements to acquire stations in Tampa, Miami, and Orlando from the Christian Network Inc., and a station in Nashville from Roberts Broadcasting. The company's chairman has made clear that he expects to make additional acquisitions.[31]

V. COMPETITIVE ANALYSIS

As discussed above, the combined WSYX/WTTE share and the level of concentration in Columbus that would result if the LMA were to be implemented are insufficient to create a danger of competitive harm. Nevertheless, in this section we consider the potential for coordinated or

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29/ *See* "NBC's Plan to Deal Away WWHO Switches Home Base for WB, UPN," *Columbus Dispatch,* August 1, 1997, p. 13D.

30/ Steve McClellan, "Bud Paxson Sets His Sights to Be Lucky Number 7," *Broadcasting & Cable*, June 30, 1997, p. 42.

31/ *See* Dave Szymanski, "Paxson Aims to Buy TV Station," *The Tampa Tribune*, May 6, 1997; "Paxson Acquires Nashville Independent," *The BIA Monitor,* July 14, 1997; "Paxson buys TBA Partner in Melbourne," *The BIA Monitor* , July 28, 1997.

unilateral anticompetitive effects resulting from the proposed LMA. We conclude that this transaction is unlikely either to facilitate collusion among local television stations in Columbus or to permit the LMA stations to raise prices unilaterally to any significant group of advertisers.

A. Difficulty of Colluding

The first obstacle to effective collusion stemming from the LMA in Columbus is the tremendous heterogeneity of the firms and products in this market. As explained above, the local television stations compete not only with each other, but also with cable operators, radio stations, newspapers and billboards. All of these media are part of the relevant market and most or all of them would have to participate in the collusive agreement in order for it to have any material impact on advertisers. A collusive agreement among just the broadcast television stations would be difficult to achieve, and any conspiracy that included additional media, as it must, would be even more difficult to accomplish. In addition to the difficulties associated with reaching a collusive agreement, any collusive agreement would quickly be undermined by the huge incentives each party would have to cheat and the difficulties entailed in detecting any cheating behavior.

Even in the narrowest market hypothesized above, the heterogeneity of the products involved would preclude successful collusion. Television advertisements are placed in or adjacent to television programs and the value of the spot depends largely on the audience those programs generate. Television programs generally differ greatly in overall popularity (*i.e.*, total audience size), audience demographics (*e.g.*, gender and age) and psychographics (*e.g.*, income, education and purchasing patterns). Because of the widely varying characteristics of the audiences generated by different television programs, the advertising spots sold by the Columbus stations are heterogeneous. This heterogeneity is reflected in the broad spectrum of advertising spot prices not only across, but also within, stations.

In any given time period, the transaction prices at which spots are sold depend upon the current conditions in the market. For example, a program's ratings and audience demographics can fluctuate from week to week depending on the time of the year, the nature of the program immediately preceding or following, the effectiveness of promotion efforts, and the popularity of programs shown on other stations. Furthermore, because each advertising spot is perishable, in the sense that it disappears once its time period has passed, the value of a particular spot may rise or fall as the time period approaches, depending on changes in advertisers' expectations about demand and the amount of inventory the station has remaining in that particular daypart. Prices can therefore change on a daily or weekly basis. All of these factors contribute to the heterogeneity of television spots and would make any attempt by the stations to impose a coordinated price increase difficult.

In addition to the heterogeneity of spots for sale, there are other important differences among advertising transactions. While some sales involve a single spot or a small number of spots, most involve packages of many programs that differ in audience size, demographics and other characteristics. Some deals permit the station to preempt an already-purchased spot with advertisements at higher prices, while others do not. Some transactions involve guarantees in which the advertiser is given "makegoods" if anticipated ratings are not achieved. Finally, some transactions specify the particular programs, or perhaps even certain positions within a program, while others specify only the characteristics of the audience to be reached leaving the station free to schedule the spots.

Thus, most advertising spots are sold in packages which are customized to the needs of the individual buyer and the prices and terms that result from each sales negotiation are simply too variable for a collusive agreement to be workable. In comments submitted to the Federal Communications Commission, the Federal Trade Commission described the heterogeneity of television advertising spots and the resulting unlikelihood of collusion as follows:

> [A]n impressive array of characteristics was found to influence the price of an advertising spot. The fraction of homes the spot is expected to reach, the absolute number of homes the spot is expected to reach, and the uncertainty connected with the spot's reach were all found to play a significant role in determining price. Each of these characteristics differs in turn depending upon the program shown, the time of day the program is shown, and the type of station (affiliate or independent) showing the program. This apparent complexity in determining the price of any particular spot would serve to increase the difficulty that networks or their affiliates [or independents] would encounter in any attempt to collude successfully on the price of spots. ...In short, this study suggests overall that the obstacles to achieving and maintaining anticompetitive conduct in broadcasting are significant.[32]

Even if such an agreement could be struck, the high contribution margins associated with the sale of each additional advertisement would create a huge incentive for each station to cheat on its co-conspirators. Virtually all of the revenue from selling an additional advertisement is a contribution to profit. Finally, the process by which television spots are sold presents another obstacle to the success of a collusive agreement among the Columbus stations. As explained in section II-A, television advertising is sold in one-on-one negotiations in which each station tries to develop an attractive package of spots that will meet an individual buyer's needs. Given that the actual transaction prices charged by a station are not readily observable by its competitors and the relatively high frequency with which advertisers shift dollars among stations and media for reasons unrelated to price,[33] it would be difficult, if not impossible, for colluding stations to detect and punish deviations from an agreement.

32/ Comments of the Bureaus of Consumer Protection, Economics, and Competition of the Federal Trade Commission before the Federal Communications Commission in the Matter of the Syndication and Financial Interest Rule, BC Docket No. 82-345, January 27, 1983, at 22-24 (footnote omitted).

33/ Over time there is a natural turnover in the group of advertisers using any particular television station. Some advertisers may move to another television station, some may move to another medium, and some may go out of business or stop advertising altogether. This natural churn in advertisers increases the difficulty of monitoring any collusive behavior. Since each station normally loses business from one year to the next, it would be difficult for the station to determine if the loss of an account is due to the normal turnover or to a competitor cheating on the collusive agreement.

B. The Unlikelihood of Unilateral Effects

According to the Merger Guidelines, the second potential source of competitive harm from a horizontal consolidation arises if the transaction enables the merged firm to raise price unilaterally. In the context of the proposed LMA, the concern would be that, once the LMA was in place, one of the stations would be able to profit by raising its prices since most of the advertisers it would lose as a result would merely switch their spending to the other station. As explained below, this outcome is unlikely because the principal assumptions on which it depends are inconsistent with the nature of television advertising sales in Columbus.

1. WSYX and WTTE Are Not the First and Second Choices for a Significant Group of Advertisers

In order for a unilateral price increase by one of the LMA stations to have any chance of success, advertisers accounting for a significant share of television advertising in Columbus must regard advertising on WSYX and WTTE as their first and second choices. If that were not the case, the loss of advertisers who responded to the price increase by shifting to some other station or media as their next best alternative would render the strategy unprofitable, given the high variable contribution margins from the sale of an additional television spot.[34] The evidence here suggests that no such group of advertisers exists.

Unless the LMA stations have a near monopoly of some target demographic group and the target group represents virtually all sales of some product, substantial alternative means of reaching significant customers of that product will continue to exist at premerger prices. But the LMA stations do not have a "lock" on viewers from any demographic group. Viewers have loyalties to

34/ As an example, assume 30% of the customers who leave the LMA station that increased rates switch to the other LMA station. Assuming equal margins at the two stations, these customers have no impact on the LMA's profitability. The total percentage of original customers who would need to switch stations to defeat a 5% price increase would still be less than 7%.

favorite shows, not to particular stations, and every station has some programming that appeals to each of the various demographic groups. Advertisers are interested in achieving certain ratings and demographic targets and typically each of the stations has some program or combination of programs that will deliver the desired audience.

The advertisers we interviewed in Columbus verify this conclusion. None of them indicated that he or she regards WSYX and WTTE as his or her top two choices for targeting any demographic or for conveying a particular message. On the contrary, as described above, most of them regard the Columbus stations as substantially interchangeable and contact all of the stations for avails on every buy. Moreover, recent Nielsen and Scarborough reports on television viewing in Columbus indicate that WSYX and WTTE are not ranked first and second for any demographic in any daypart. (See Exhibit 6.) Accordingly, there is no basis for assuming, as the unilateral-effects theory requires, that if either station raised its prices, most or all of the sales lost as a result would be diverted to its LMA partner.

2. Successful Price Discrimination is Unlikely in this Market

Even assuming that there were a group of advertisers that regarded the LMA stations as their first and second choices and would not shift to other stations or media in response to a WSYX or WTTE price increase, the stations would still have to identify these captive advertisers and successfully price-discriminate against them in order for the increase to be profitable. As explained below, both of these tasks would be exceedingly difficult to accomplish.

Identifying any captive advertisers would be difficult because most television advertisers do not buy a station or medium exclusively; in fact, many include most or all of the stations in a market (as well as other media) on each of their buys. The VoiceTrak data suggest that the LMA stations could not identify a target group of price-insensitive advertisers based on the nature of the advertisers' business because even advertisers within a specific business category use a variety of media mixes to reach their target audiences. The stations would have to make educated guesses about which advertisers would accept a rate increase, but a sufficient number of wrong guesses would make the attempt to price discriminate unprofitable.[35] As suggested by the Critical Loss discussion in section III, the loss of even a small amount of advertising revenue as a result of a mistaken belief about an advertiser's options will render unprofitable any attempt at price discrimination. As a percentage of total advertising revenue, the amount of lost sales necessary to defeat price discrimination is particularly small because any price increase only applies to a subset of customers.

The task could be made even more difficult by strategic behavior on the part of the advertisers. In a situation with repeated buying, as is likely to be the case with the purchase of television advertising, customers that place a high value on advertising on a particular station have an incentive to disguise their preferences in order to lessen their vulnerability to price discrimination. Thus any Columbus advertiser with a particular penchant for advertising on WSYX and/or WTTE would have an incentive in response to a price increase to walk away from a negotiation with its favorite station(s) and pull its spending (at least temporarily) in order to signal that it was price sensitive.[36].

Finally, successful price discrimination can only be accomplished if the stations can prevent arbitrage between customers and if advertisers cannot take steps to avoid the price discrimination. As explained in section II, a significant portion of television advertising sales are already sold through brokers, advertising agencies and media buyers, and more sales could be made through such outlets. Any advertiser who believed that it had limited alternatives to television could use an intermediary. Media buyers and advertising agency representatives can effectively prevent price

35/ *See* Hausman, Leonard, and Vellturo, "Market Definition Under Price Discrimination," 64 *Antitrust Law Journal* 367 (1996).

36/ *Id.* Hausman et al. conclude that price discrimination is less likely in a repeated-sales situation than in a single-sale situation.

discrimination against their clients because they are able to compare the rates submitted for different buys and to resist the stations' attempts to charge greatly disparate rates for the same or similar spots. The Columbus media buyers and agency representatives we interviewed almost unanimously discounted the possibility that any of the stations could successfully price discriminate against their clients and they emphasized that they would notice any rate differential immediately.

C. Summary

The proposed LMA would neither increase the likelihood of collusion among television stations in Columbus nor allow the LMA stations to profit from increasing advertising rates unilaterally. The heterogeneity of television advertising spots and the individualized and non-transparent negotiations through which they are sold effectively eliminate the possibility that the LMA could result in higher prices by facilitating collusion among the Columbus stations. With respect to the danger of unilateral effects, the absence of evidence that a significant group of advertisers regards WSYX and WTTE as their first and second choices, and the enormous difficulties associated with identifying and successfully price discriminating against any such group, even if it were to exist, indicate that there is little to no likelihood that the LMA stations could profitably raise rates to any significant number of their customers.

VI. EFFICIENCIES RESULTING FROM THE PROPOSED LMA

The parties expect the proposed LMA to yield a number of efficiencies, including substantial cost savings, increased opportunities for cross-promotion and a more rapid and cost-effective conversion to digital transmission. If these efficiencies are realized, and Sinclair's experience in other LMA markets suggests that they will be, this transaction is likely to have significant procompetitive effects on the sale of local advertising in Columbus. We briefly discuss two of the most important efficiencies expected from the LMA—the expanded output of local news and the opportunity to counter-program the stations and thereby offer advertisers greater, unduplicated reach.

In anticipation of the LMA, last fall WSYX and WTTE entered into a news production agreement, under which WSYX produces and staffs a nightly 10 o'clock news program for WTTE to broadcast. The resulting 35-minute newscast has increased the number of available advertising spots on WTTE, and, in particular, has increased the inventory of late-news spots available to advertisers. With the LMA, the stations could more fully utilize their local news-gathering and programming resources and thereby increase the number and quality of local informational programs. By permitting the costs of upgrading equipment and facilities to be spread across more news broadcasts, the LMA would facilitate the improvement of both stations' news programs. In addition, the resulting cost savings could enable WTTE to expand its 10 o'clock news to a full hour or to introduce an early news program.

The expansion of local news operations benefits advertisers by increasing the supply of advertising spots. The increase results because local news programs generally have more commercial time for the station to sell than do syndicated programs. These spots are particularly attractive to advertisers because they occur during local newscasts, a favorite daypart for many advertisers. Indeed, several of Columbus media buyers we interviewed indicated that they had clients who primarily advertise on local news and noted that since WWHO (through its LMA with WCMH) has added a late news show, they have begun to buy that station for the first time. The result of an increased supply of advertising time during local news should be to exert downward pressure on advertising rates.

In addition to increasing the amount and quality of locally originated news and public affairs programming, the LMA will allow the stations to coordinate their entertainment programming. By offering complementary programs (*i.e.*, programs that appeal to somewhat different, rather than completely overlapping, demographics), the stations should be able to increase the size of the combined audience that they can deliver to advertisers. The larger the audience, the more efficiently advertisers can reach their customers and the more they are willing to pay for an advertising spot.[37]

In sum, the LMA would enable the stations to increase both the inventory and the value of products available to local advertisers in Columbus. We therefore conclude that the LMA is likely to enhance, rather than harm, competition in the relevant market.

VII. CONCLUSION

The proposed LMA between WTTE and WSYX does not pose a threat to competition in the sale of local advertising in Columbus. Data on actual advertiser spending patterns, as well as anecdotal and empirical evidence, indicate that the two stations compete with a variety of other media, including cable television, radio, newspapers and billboards, for the patronage of local advertisers. In the appropriately defined relevant market, which contains these other media, the combined market share of the two stations and the post-LMA HHI are simply too small to warrant any serious competitive concerns. Moreover, even if the market were defined more narrowly, the post-LMA market shares are still below the levels that would suggest a possibility of anticompetitive effects from this transaction.

Reinforcing this conclusion are our findings that the proposed LMA does not threaten either to increase the likelihood of collusion among television stations in Columbus or to allow the LMA stations to profit from increasing advertising rates unilaterally. With respect to the concern that the

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37/ *See* Franklin M. Fisher, John J. McGowan and David S. Evans, "The Audience-Revenue Relationship for Local Television Stations," 11 *The Bell Journal of Economics* 694 (Autumn 1980). The authors determined that there is a non-linear effect between audience size and advertising revenues. For example, a 10% increase in audience size for a program will yield an increase in the station's advertising revenues of more than 10%.

LMA could lead to higher prices by facilitating collusion among the sellers of local advertising in Columbus, there are at least four reasons to discount this possibility.

First, the relevant market, properly defined, includes other media and the likelihood that most or all of these sellers could or would combine effectively to increase their rates to advertisers is very small. Second, even assuming a market consisting only of the local television stations, the heterogeneity of television advertising spots would make achieving a collusive agreement impossibly difficult. Third, the low marginal cost of television spots (resulting in a contribution margin of almost 100%) would make the incentive to cheat on any agreement enormously high. Fourth, given the highly individualized process by which advertisements are sold, the almost total lack of public information on transaction prices, and the fact that advertisers frequently switch stations for reasons unrelated to rates, such cheating would be extremely hard to detect and therefore likely to lead quickly to the collapse of the cartel.

With respect to the danger of unilateral effects, the absence of evidence that a significant group of advertisers regards WTTE and WSYX as their top two suppliers and the difficulty of successfully identifying and price discriminating against any such group of their customers makes the possibility that the LMA stations unilaterally could profitably raise prices remote. Further reducing the likelihood that such a strategy would succeed is the fact that advertisers can purchase spots through intermediaries and any advertiser that strongly prefers advertising on WSYX and/or WTTE has the incentive to pull its spending at least temporarily in response to a price increase in order to signal that it is price sensitive.

Finally, our analysis suggests that the LMA could have significant procompetitive effects by expanding the output of local news and enhancing the value of the spots on the entertainment programs broadcast by the two stations.

For all of these reasons, the proposed LMA poses little risk of any significant injury to competition in the sale of local advertising in Columbus.

COMPLEMENTARY PROGRAMMING

The coordination of entertainment programming on WSYX and WTTE is one source of the efficiencies Sinclair expects will result from the proposed LMA. The concept is that by offering complementary programs (*i.e.*, programs that appeal to somewhat different, rather than completely overlapping, demographics) during time periods when there is no network programming, the stations should be able to increase the size of the combined audience that they can deliver to advertisers. The larger the audience, the more efficiently advertisers can reach their customers and the more they are willing to pay for an advertising spot.

The Division has asked why the stations don't currently engage in complementary programming, and whether the introduction of complementary programming will disadvantage advertisers in their ability to negotiate rates. In response to these questions, this paper first briefly summarizes the results of several theoretical models that explore the issue of program choice. These models yield the prediction that if there is a limited number of channels, competition may result in program duplication and fail to serve "minority" program tastes. In such a situation, bringing stations under common ownership is likely to increase program diversity.

Second, the paper discusses the reasons that advertisers also are likely to benefit through the LMA's use of complementary programs. Eliminating the duplicate programming on one station should increase the audience on the second station. This is advantageous to advertisers because advertisers value programming that generates large audiences. Indeed, advertisers are willing to pay disproportionately more for the larger reach. But this increased audience does not confer market power on the second station since this station will still face competition from the other television stations in Columbus as well as competition from other media. At the same time, the first station will be able to offer programming that attracts new viewers. This is also advantageous to advertisers because these viewers previously were not available to advertisers during this time period.

Theories of Program Choice

Over the last 50 years, economic theorists have developed several models of the links between market structure, product diversity, and audience size in mass media markets. These models show that if viewers are unable to express the intensity of their preferences by paying for broadcast programs, many of our preconceptions about the value of competitive market structures may be erroneous. In particular, if the number of stations is constrained by government regulation, then allowing common ownership of the stations, or some of the stations, may increase the diversity of the types of programs offered and increase the number of viewers. This section briefly summarizes some of these models.

The earliest models of program choice were by developed by Steiner.[1] Steiner postulates that there are different groups of consumers, and each group has a preferred program type. If a group's preferred programming is available they will watch it, otherwise they will not watch anything. Steiner further postulates that these groups are of dissimilar size, reflecting majority and minority tastes in programming. Steiner's models produced the result that a single owner of all stations will perform better, *i.e.*, offer greater viewer satisfaction, than will separate owners of all stations. This result arises because the monopolist is interested in maximizing the total audience of all the channels and does

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1 Steiner, P.O., "Program Patterns and Preferences, and the Workability of Competition in Radio Broadcasting," *Quarterly Journal of Economics*, v. 66 (May 1952).

this by offering different program types. In contrast, each competitor is interested in maximizing the audience of its own channel, and, if there is a sizable group that prefers a particular type of programming, will do so by offering duplicate programming to that group. Steiner finds that competitors fail to offer minority preferred programming. This tendency toward excessive sameness under competition is similar to that predicted by the spatial models developed by Hotelling.[2]

A more sophisticated model of program choice was developed by Owen, Beebe and Manning.[3] They allow for different patterns of viewer program preferences and different distributions of viewers. They also control for program costs, the number of channels available, and the market structure. While the exact outcome of their model depends on which particular set of assumptions is used, the authors reach several overall conclusions from the model.

Under the assumption of limited channels, the model yields the following predictions: (1) If viewers watch only their first choice programs, then monopoly provides at least as many program types and viewer satisfaction at least as great as competition; (2) If viewers watch only their first choices and the viewer distribution is skewed, then competition results in program duplication and monopoly provides more program types and greater viewer satisfaction than competition; (3) If there exists a common denominator program (*i.e.*, programming that all viewer groups will watch even though it is not their preferred programming), then competition provides at least as many program types and viewer satisfaction at least as great as monopoly.[4]

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2 Hotelling, H., "Stability in Competition," *The Economic Journal*, v. 34 (March 1929).

3 Owen, B., J. Beebe, and W. Manning, Jr., *Television Economics*, Lexington Books (1974) at 57.

4 *Id.* at 72.

Hence, the model's predictions point to the conclusion that under advertiser-supported TV, if channel capacity is constrained (the present situation for broadcast television), then one cannot say which ownership structure will yield greater viewer satisfaction for general preferences. However, if a significant number of viewers turn off their televisions if their preferred programs are not available, then monopoly will provide more program types and greater viewer satisfaction than competition.

Under unlimited channels, competitive program duplication does not displace minority programming, although duplication may result in a waste of resources. The minority programs (if preferred by viewers and if economically viable) appear in addition to the duplicated programs. However, government regulations on spectrum usage preclude a competitive outcome with unlimited channels.

Spence and Owen[5] developed a model of program choice that incorporates viewers willingness-to-pay as a measure of preference intensity. However, since viewer preferences cannot be expressed at all under advertiser-supported television, Spence and Owen find a bias against programs with viewer benefits concentrated in a small portion of the audience and a bias against programs with small audiences. That is, even though a small group may place a higher total value on its preferred programming than does a large group, the stations will cater to the latter. This because under advertiser-supported television the primary incentive of the stations is to deliver the largest possible audience to the client. More generally, Spence and Owen find a bias against programs with steep demand curves (or inelastic demands). As the number of media firms grows, however, many firms have to share the popular programming types. In this situation, the profitability of reaching a small audience with

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5 Spence, A.M., and B.M. Owen, "Television Programming, Monopolistic Competition and Welfare," *Quarterly Journal of Economics* 91:103-126 (1975).

a "minority" taste may be greater than that of reaching a small portion of a large audience with more "common" preferences.

All of these models point out two important behavioral differences between monopolists and competitors that influence program patterns and viewer satisfaction: competitors' tendencies toward program duplication and imitation, and the monopolist's search for audience-maximizing common-denominator programs. A simple example can illustrate these points.[6]

Assume that an area is served by three television stations and that the 10,000 viewers in that area cast their preferences among three program types, each of which costs $300 to produce and for which advertisers will pay $1 per viewer, in this manner: 7,500 viewers prefer program *A*; 2,000 viewers prefer program *B*; and 500 prefer program *C*.

All other things being equal, if the three television stations are operated competitively, each is likely to offer the same program type, program *A*. If each gains an average share of the market, it will attract 2,500 viewers and realize profits of $2,200 ($2,500 – $300). Each station makes more profit following this "copycat" strategy than by offering either program *B* (profit of $2,000 – $300 = $1,700) or program *C* (profit of $500 – $300 = $200).

Conversely, on these simple assumptions, a monopolist that controlled all three stations would maximize its profits by offering all three program types. As just noted, offering program *B* will generate profits of $1,700, and program *C* will bring in $200. Offering program *A* will generate another $7,200 ($7,500 – $300) in profits for a total of $9,100. No other combination of program types can produce such profits.

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6 The following example is taken from Krattenmaker, T.G., and L.A. Powe, Jr., *Regulating Broadcast Programming*, Cambridge: The MIT Press (1994), at 42.

An increase in program diversity can also be achieved by allowing joint ownership of two of the stations. Now, if all stations offer the same program type, program *A*, the joint owner's two stations will account for two-thirds of the 7,500 viewers. The joint owner will have profits of $4,400 ($5,000 – $600). Alternatively, the joint owner could program one station with program A and the other station with program B. In this case, the joint owner will split the viewers of program A with the other owner, thereby receiving 3,750 viewers, and will also capture the 2,000 viewers who prefer program B. The joint owner's total profit has increased to $5150 ($3,750 + $2,000 – $600) by offering complementary programming instead of offering duplicate programming.

In sum, at least at the purely theoretical level, we cannot say with assurance that the diversity of programs offered will constantly increase with the number of firms in the market, although, once firms are rather numerous, we do expect this to happen. Nevertheless, it is likely that, in some ranges, monopolists will offer more choices than would a number of separately owned firms. A principal determinant of the extent of program diversity within local markets is the number of broadcast stations available in the market.

Impact on Advertisers

Allowing the LMA would provide WTTE and WSYX with cost savings and economies that could be translated into more diverse, higher quality programming. Through the LMA, WTTE and WSYX may be better able to provide higher quality, more diverse programming to viewers, and in turn present a more attractive option to advertisers.

By eliminating duplicate programming on one of the stations and introducing complementary programming in its place, the LMA could increase the size of the audience that one of the stations delivers, and that the combined stations deliver, to advertisers. The larger the audience, the more efficiently advertisers can reach their customers. A corollary of this efficiency would be enhanced revenues, as historically there appears to be a nonlinear effect between audience size and advertising revenues. For example, a 10 percent increase in audience size for a station will yield a greater than 10 percent increase in the station's advertising revenues. Hence, in addition to generating a larger audience to sell to advertisers, the price per viewer that advertisers will be willing to pay may increase because the larger audience is more valuable to advertisers.

This issue was explored by Fisher, McGowan and Evans,[7] who examined the audience-revenue relationship for local television stations. In particular, they found a positive nonlinear relationship between revenue and audience size. According to Fisher, McGowan and Evans:

> A positive nonlinear effect implies that advertisers do not, for example, view two spots on a station reaching a given audience as equivalent to a single spot on a station reaching an audience twice as large. Advertisers may value the single spot on the large-audience station more than the two spots on the small-audience one, even though the total audience appears to be the same in the two cases, because the audiences for the two spots on the station with the smaller audience may have some viewers in common, while the audience for the single spot on the station with the larger audience provides a greater number of *different* viewers. If advertisers value a message to a marginal viewer more highly than a marginal message to an inframarginal viewer, then there will be a positive nonlinear effect of audience on revenue.[8] (emphasis in original)

These results indicate that the value of audience size increases more than proportionately with audience size. A nonlinear effect between advertising rates and audience size is not unreasonable. The advertiser is purchasing the attention of viewers and is interested in the number of different viewers reached as well as frequency of viewer exposure.

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7 Franklin M. Fisher, John J. McGowan and David S. Evans, "The Audience-Revenue Relationship for Local Television Stations," *The Bell Journal of Economics* 11 (Autumn 1980): 694-708.

8 Id., at 700. In other words, a single advertisement that reaches 50,000 households is worth more than 2 advertisements, each reaching 25,000 households, because the single advertisement guarantees to 50,000 different viewers while the 2 advertisements may have significant viewer duplication.

Advertisers are unlikely to be indifferent between the alternatives of a larger reach for a given advertisement and a greater frequency brought before a given audience.

Even though the LMA through complementary programming may increase the size of the audience that the stations can offer to advertisers during some particular time period, this does not confer any market power on the stations. Since viewers have loyalties to specific programs, or program types, and not to a particular station, the use of complementary programming does not give any station a "lock" on a particular demographic. Advertisers are interested in achieving certain ratings and demographic targets and typically each of the stations has some program or combination of programs that will deliver the desired audience, perhaps on other days or dayparts.

At the same time the use of complementary programming increases the audience on one station, it may also attract viewers that were previously not watching television to the programming on the other station. This will increase the number of opportunities that advertisers have to reach those viewers.

In summary, to the extent that the LMA can offer advertisers access to a larger audience, the revenue per household achieved by the LMA should increase. This increase would be the result of the stations offering advertisers a more desirable product and the fact that advertising revenues increase faster than proportionately with audience size, *i.e.*, the non-linear effect.

Experience in Baltimore

Sinclair has used this complementary programming approach with success in Baltimore. Prior to the LMA between WBFF and WNUV, both stations broadcast situation comedies during the early fringe and prime-time access period. Hence, the two stations were offering a similar type of programming and the stations were sharing the audience that preferred that type of programming. After the LMA, Sinclair continued to program one station with situation comedies but introduced reality-based programming on the other station. As a result, one station appeals more to an urban audience while the other station appeals more to a suburban audience. The audience size of the station offering situation comedies has increased, and overall viewing on the two stations has increased since the diverse programming attracted new viewers. In addition, the aggregate advertising revenues received by the stations have also increased since the LMA was implemented.

Conclusion

It is erroneous to assume automatically that the current status of television station ownership and program offerings represents the free-market competitive outcome. To the contrary, historical government regulations restricting the number of broadcast television stations in a market and restricting the ownership of those stations have merely resulted in the best outcome available given those restrictions on the workings of the marketplace. Theoretical models examining program choice indicate that competitive behavior with a limited number of channels may produce program duplication at the expense of minority programming. In these situations, bringing stations under common ownership will increase the diversity of programming and increase the audience size of one of the stations and of the combined stations. This expanded reach is beneficial to advertisers since they value larger, unduplicated audiences. Hence, the LMA's introduction of complementary programming is likely to benefit viewers and advertisers as well as the two stations.